

Conference Abstract

# Constructing a Ciliate Slide Collection in Mexico: First Steps

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## Abstract

Ciliophora is extremely diverse and probably the most studied group of heterotrophic protists, with cilia and a nuclear dimorphism (Simpson 2017). Records published in the 1920s identify 1026 species of ciliate protists (Alveolata: Ciliophora) in Mexico (Mayén-Estrada et al. 2020). Up to now, there has been no formal deposit of microscope slides in any collection in the country. The Protozoology Laboratory (at the Department of Comparative Biology in the Faculty of Sciences of the National Autonomous University of Mexico (UNAM) houses ciliate-mounted slides that are the result of research projects and theses since the 1990s. We aim to check the condition and quality of the slides to formalize an institutional collection. To date, we have found slides documenting around 90 ciliate genera, including both free-living species and symbionts, collected in 13 states of the Mexican Republic (Fig. 1).

Slides contain representatives of the 11 classes proposed by Lynn (2008), with the genus *Vorticella* (Class Oligohymenophorea) distributed in 11 Mexican states, and the genus *Bresslauides* (Class Colpodea) only in one state. The slides were created with several stain and impregnation techniques (Figs 2, 3).

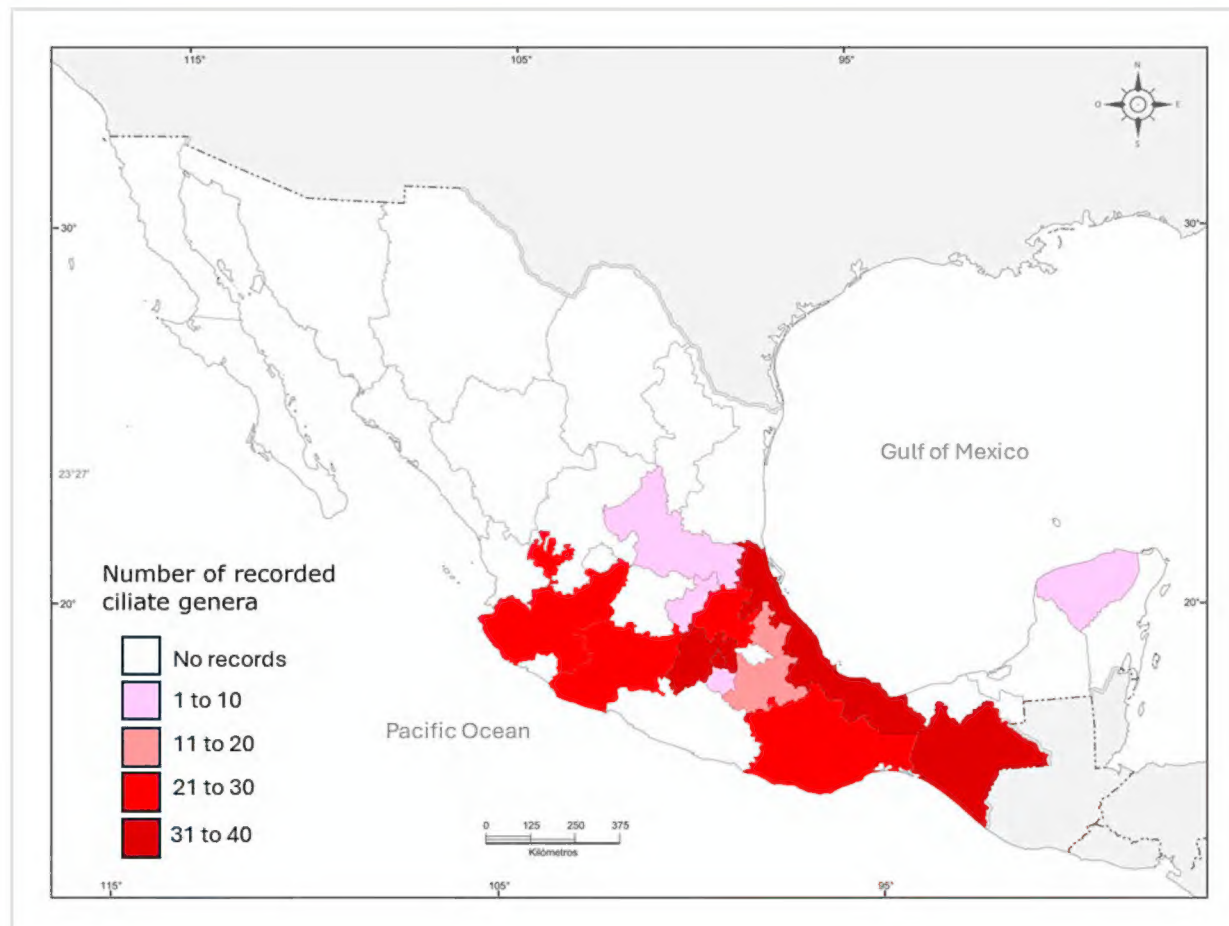


Figure 1.

Map of Mexico showing the states and number of genera of ciliates with at least one mounted slide deposited in the Protozoology Laboratory, Sciences Faculty, UNAM.



Figure 2.

*Phacodinium* sp. (Class Spirotrichea) from Jalisco, Mexico.



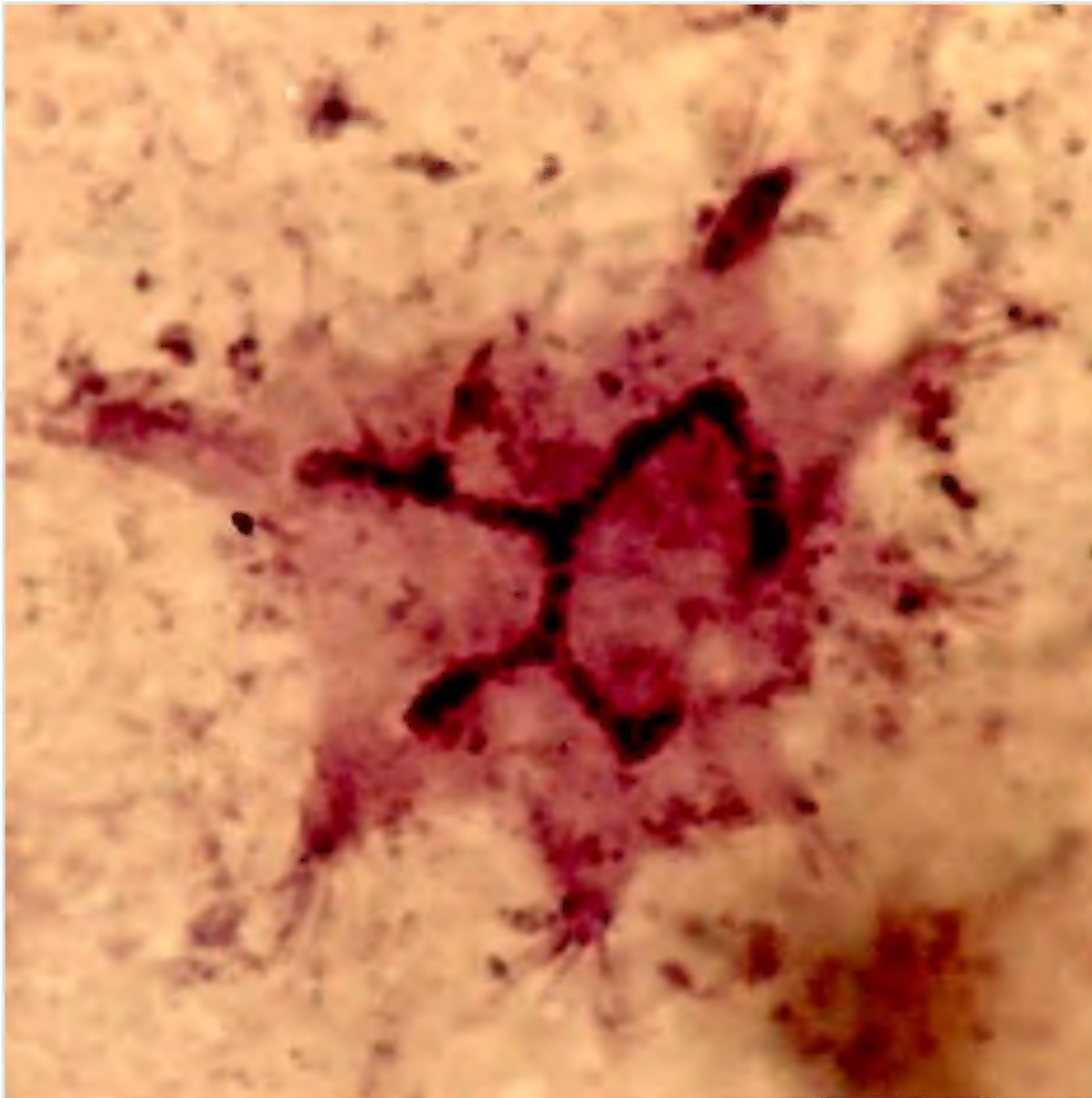


Figure 3.

*Trichophrya* sp. (Class Phyllopharyngea) from Michoacán, Mexico.

Our goal is to inform and share the challenges faced to maintain this collection and achieve its recognition, all while exploring the possibilities of sharing it with the scientific community as part of Mexican natural history and protistological biodiversity.

## Keywords

Ciliophora, protists, microscope slides

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## Conflicts of interest

The authors have declared that no competing interests exist.

## References

- Lynn DH (2008) The Ciliated Protozoa. Springer <https://doi.org/10.1007/978-1-4020-8239-9>
- Mayén-Estrada R, Reyes-Santos M, Durán-Ramírez CA, Medina-Durán JH, Olvera-Bautista JFY, Vicencio-Aguilar ME, Romero-Niembro VM, et al. (2020) Informe final del proyecto KT003 protistas ciliados y flagelados heterótrofos. CONABIO.
- Simpson AGB, et al. (2017) Protist diversity and Eukaryotic phylogeny. In: Archibald JM, Simpson AGB, Slamovitz CH (Eds) Handbook of the Protists. [https://doi.org/10.1007/978-3-319-32669-6\\_45-1](https://doi.org/10.1007/978-3-319-32669-6_45-1)